

WHAT IS CLAIMED IS:

5

1. A plug connector for differential transmission, comprising:

10 a block body made of an insulating material, the block body including a main body part and a projection part projecting therefrom;

15 a plurality of plate-like ground contact members each including a plate-like base part, a ground contact part on a first side of the base part, and a mounting terminal part on a second side of the base part opposite to the first side, the base part and the ground contact part being fixed to the main body part and the projection part, respectively, of the block body;

20 a plurality of first signal contact members each including a base part, a signal contact part on a first side of the base part, and a mounting terminal part on a second side of the base part opposite to the first side, the base part and the signal contact part being fixed to the main body part and the projection part, respectively, of the block body; and

30 a plurality of second signal contact members each including a base part, a signal contact part on a first side of the base part, and a mounting terminal part on a second side of the base part opposite to the first side, the base part and the signal contact part being fixed to the main body part and the projection part, respectively, of the block body,

35 wherein: the first signal contact members and the corresponding second signal contact members form signal contact pairs;

the signal contact pairs and the ground contact members are arranged alternately, being supported by the block body;

5 each ground contact member is shaped so that the ground contact member thereof is positioned vertically at a distance from a plane in which the mounting terminal part thereof is disposed, and a portion of the base part thereof on a mounting terminal part side and the mounting terminal part  
10 thereof each have a dimension smaller than that of the ground contact part thereof in a direction in which the ground contact members are arranged;

each of the first and second signal contact members is shaped so that a length  
15 adjustment part and an extension part are provided between the base part and the mounting terminal part thereof; and

the mounting terminal parts of the first and second signal contact members and the mounting  
20 terminal parts of the ground contact members are positioned in the same plane so that the mounting terminal parts of the first and second signal contact members of each signal contact pair are disposed between the mounting terminal parts of the  
25 ground contact members adjacent to the signal contact pair.

30

2. The plug connector as claimed in claim 1, wherein the portion of the base part on the mounting terminal part side and the mounting terminal part of each ground contact member are  
35 formed by press working.

3. The plug connector as claimed in claim 1, wherein the length adjustment parts and the extension parts of the first and second signal contact members of each signal contact pair are positioned between portions of the base parts of the ground contact members adjacent to the signal contact pair, the portions each projecting from the main body part of the block body in a direction opposite to a direction in which the projection part of the block body projects from the main body part thereof.

15

4. The plug connector as claimed in claim 1, wherein: the length adjustment parts of the first signal contact members and the length adjustment parts of the second signal contact members are curved in opposite directions so that each length adjustment part is positioned, at an end thereof on an extension part side, at a distance from the plane in which the mounting terminal parts of the first and second signal members are disposed, the distance being intermediate between a distance from the plane at which the signal contact part of each first signal contact member is positioned and a distance from the plane at which the signal contact part of each second signal contact member is positioned; and the extension parts of the first signal contact members and the extension parts of the second signal contact members extend parallel to each other from ends thereof on a length adjustment part side to the mounting terminal parts thereof.

35

5. The plug connector as claimed in claim 4, wherein: each first signal contact member has the length adjustment part thereof extending from a portion of the base part thereof, the portion being  
5 offset from a center of the base part in a first direction; and

each second signal contact member has the length adjustment part thereof extending from a portion of the base part thereof, the portion being  
10 offset from a center of the base part in a second direction, the second direction being opposite to the first direction along a direction in which the signal contact pairs and the ground contact members are arranged.

15

6. The plug connector as claimed in claim 4, wherein each first signal contact member has the length adjustment part thereof extending from a center of the base part thereof so as to curve in a first direction; and

each second signal contact member has the  
25 length adjustment part thereof extending from a center of the base part thereof so as to curve in a second direction, the second direction being opposite to the first direction along a direction in which the signal contact pairs and the ground  
30 contact members are arranged.

7. The plug connector as claimed in claim 1, wherein: the block body includes a position control part projecting therefrom in a direction

35

opposite to a direction in which the projection part of the block body projects from the main body part thereof; and

- 5       the mounting terminal parts of the ground contact members and the first and second signal contact members engage the position control part of the block body so that positions of the mounting terminal parts are controlled.